

WEATHER SERVICE DIVISION,
WEATHER BUREAU.

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U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU,

CO-OPERATING WITH THE

MARYLAND STATE WEATHER SERVICE

Established by an Act of the General Assembly of the State of Maryland, 1892,
and Maintained in Connection with



The Johns Hopkins University and the Maryland Agricultural College.
CENTRAL OFFICE, JOHNS HOPKINS UNIVERSITY, BALTIMORE, MD.

PROF. WM. B. CLARK,
JOHNS HOPKINS UNIVERSITY,
Director.

PROF. MILTON WHITNEY,
MARYLAND AGRICULTURAL COLLEGE,
Secretary and Treasurer.

DR. C. P. CRONK,
U. S. WEATHER BUREAU,
Meteorologist in Charge.

VOL. III, No. 11.

MONTHLY REPORT.

MARCH, 1894.

Review of the Month—February. Weather.

LOW AND HIGH AREAS.

At 8 A. M., February 1st, a shallow area of low pressure was central off the southern coast of New Jersey, but it passed to the northeast, causing but a slight rise in temperature above the normal, and only a very few light local showers. The heaviest of the showers fell in Western Maryland, and were evidently due to the fall in temperature consequent upon the rapid advance from the West of a large, well-defined high area, central over Nebraska and Kansas at 8 A. M. of the 1st, and over Virginia at 8 A. M. of the 2nd. This extensive high area disappeared to the eastward of the Atlantic coast during the night of the 2nd, and the fair and colder weather was followed by general rains during the 3rd and 4th, with a higher temperature on the 3rd. This change in the weather was due to the departure of the high area and the passage eastward of two low-pressure storms. The northernmost depression was first observed at 8 A. M. of the first, central in Alberta, north of Montana. At 8 P. M. of the 2nd it was central north of Lake Superior, and on the 3rd passed down the St. Lawrence Valley. The higher temperature of the 3rd was doubtless due to this storm, and the rains of that day were due in part to it and in part to the secondary storm which formed in northern Texas and New Mexico on the 2nd, and was central at 8 P. M. of the 3rd over eastern Tennessee. The snow and rain of the 4th resulted from this secondary; and as its path to the Atlantic was to the southward of

Maryland, the cold northerly winds moving towards its center, from a high area in the Lake Region, passed over Maryland and Delaware, causing a rapid fall in temperature. The last-mentioned storm passed northeast over the Atlantic on the 4th and was succeeded by a high area, fair weather, and a still lower temperature on the 5th. The high area moved slowly and did not lose its influence on the weather of the Atlantic coast until the 7th. Then it gave place, on its north side, to a storm which followed the well-beaten track over the Lakes and down the St. Lawrence Valley. This storm developed on the 7th, over Texas, a secondary, being central itself, on the morning of that day, over Lake Superior. Unlike the secondary storm previously mentioned, this one moved northeast to the Lake Region, following its predecessor down the St. Lawrence Valley. The rains of the 7th, 8th and 9th, with the accompanying high temperature, which continued until the 11th, were a result of the near approach of these storms and the paths they followed.

The fair weather of the 10th and 11th was due to the extensive eastward movement of a great area of high pressure. This area, however, which, if it had remained undisturbed in its eastward movement, would have caused a continuance of the fair weather for a number of days, was crowded northward and partially absorbed on the 11th and 12th by a severe low-pressure storm from the Southwest. The center of the storm reached Lake Erie at 8 P. M., the 12th, and at this time it had developed a secondary on the middle Atlantic coast. Cold northerly winds flowing into the secondary caused the depression in temperature during the 12th and 13th, and as

the storm was succeeded by a high area, the temperature remained low. The snow and rain of the 12th, a result of the storm from the Southwest, continued until the 15th, as the last-mentioned storm had scarcely passed away before it was succeeded by one from the Gulf coast, which passed over Maryland on the morning of the 15th. The fair weather from the 15th to the 17th came with a high area from the Southwest.

The next low-pressure storm came from the Northwest and reached the Lake Region on the 17th. The light rains of the 18th followed, with a rise in temperature to above the normal. The scattered local rains of the 19th were due to a storm of slight intensity which passed over Maryland on the evening of that day.

On the 21st and 22nd a storm from the Gulf coast moved northeast to the Carolinas, and scattered snow and rain storms occurred on these dates. The temperature fell to several degrees below the normal, owing to the inflow over Maryland of cold air from the North. A high area from the Northwest kept the weather fair and the temperature down on the 23rd and 24th.

A storm from the Florida coast passed over Maryland on the 26th, and was the cause of the snow and rain of the 25th and 26th. The temperature continued low for reasons before given. As high areas dominated the weather during the remaining two days of the month, they were fair, and the temperature remained below the normal.

Temperature (degrees).—Monthly mean (for entire territory covered), 33.7, being 5.9 below the normal; highest monthly mean, 38.6, at Benedict; lowest monthly mean, 26.5, at Sunnyside; highest temperature, 68, at Millsboro, Del., on the 9th, and at Charlotte Hall, on the 18th; lowest temperature, —10, at Oakland, on the 17th; greatest local monthly range, 62, at Oakland; least local monthly range, 42, at New Market and at Great Falls; mean monthly range, 51.2; monthly mean maximum temperature, 42.2; monthly mean minimum temperature, 25.6.

The isotherms, drawn on the map, page 95, show the warming influence exerted by the Chesapeake Bay on the contiguous portions of the State. The difference in temperature between the Hagerstown valley and the more elevated country on either side is also exhibited.

Precipitation (in inches).—Average, 4.24, being .03 below the normal; greatest amount, 6.15, at Oakland; least amount, 2.31, at Woodstock College.

The greatest fall of snow during the month, in Maryland, 47 inches, is reported by the observer at Oakland. The next greatest fall, 41.8 inches, is at Sunnyside. Boettcherville, situated in the adjoining county, reports 27 inches, while Cumberland, close by, reports 24 inches.

Baltimore reports 11.7 inches, being the same amount reported during February, 1893.

The distribution of the precipitation throughout the month is well shown by the table of daily precipitation, page 94; and the map, page 95, exhibits the distribution of the total fall over the State.

Wind.—Prevailing direction, northwest. Total movement in miles, Baltimore, 5515; Norfolk, Va., 6462; Washington, D. C., 5331.

Hail.—At Mardela Springs, on the 2nd, 12th, 14th, 21st; at Chestertown, on the 12th; at Fallston, on the 26th; at Milford, Del., on the 25th; at Millsboro, Del., on the 12th; at New Market, on the 4th, 12th, 25th; at Seaford, Del., on the 21st; at Solomon's, on the 25th; at Sunnyside, on the 19th; at Woodstock College, on the 11th.

Sleet.—At Baltimore, on the 12th, 25th; at Boettcherville, on the 2nd, 12th; at Charlotte Hall, on the 15th; at Chestertown, on the 12th; at Fallston, on the 12th, 18th, 19th; at Denton, on the 15th; at Millsboro, Del., on the 12th; at New Market, on the 12th, 25th; at Sunnyside, on the 12th.

Fog, dense.—At Baltimore, on the 9th; at Mt. St. Mary's, on the 10th; at Sunnyside, on the 3rd, 8th; at Valley Lee, on the 8th.

Thunderstorms.—At Mardela Springs, on the 25th; at Dover, Del., on the 26th; at Fallston, on the 26th; at Milford, Del., on the 25th; at Millsboro, Del., on the 12th, 26th; at New Market, on the 19th; at Seaford, Del., on the 12th; at Solomon's, on the 12th; at Sunnyside, on the 19th; at Valley Lee, on the 12th.

Polar Bands.—At Cumberland, on the 5th, 18th.

Auroras.—At Bachman's Valley, on the 22nd, 23rd; at Baltimore, on the 23rd; at Cumberland, on the 22nd; at Fallston, on the 23rd; at Milford, Del., on the 22nd, 23rd; at Millsboro, Del., on the 23rd; at Mt. St. Mary's, on the 23rd; at New Market, on the 22nd, 23rd; at Woodstock College, on the 23rd.

Halos.—Solar, at Baltimore, on the 17th; at Mardela Springs, on the 17th.

Lunar, at Baltimore, on the 15th, 16th; at Mt. St. Mary's, on the 11th, 18th.

Corona.—Lunar, at Baltimore, on the 18th.

Crops.

Sunnyside, Garrett County.—The weather during February was very changeable. Rain, snow, sleet—all within 24 hours. The 41.8 inches of snow that fell during the month gave but little protection to crops, as it generally dis-

appeared in a few days. Farmers made good use of the snow while it lasted—hauling limestone and coal. The ground was frozen on the 24th from 6 to 7 inches deep.

Notes by Observers.

Bachman's Valley.—13th to 18th, good sleighing. 19th, very warm; lightning in the evening. 22nd, between 10 and 11 p. m., beautiful display of aurora observed coming up in the form of smoke, followed by a deep red light, causing the heavens to be very brilliantly lighted. 28th, bluebirds and robins appeared. Total snowfall during the month, 16 inches.

Baltimore.—25th, the coldest morning of the winter. The minimum temperature was 7.7°. Threatening weather during the early morning, followed by light snow at 1.10 p. m., which continued steadily, becoming quite heavy between 5 and 8 p. m. At 8 p. m. the depth of snow was 3.5 inches. The snow continued quite heavy until 9.45 p. m., when it changed to sleet, which continued throughout the night. The wind was generally brisk, becoming high and reaching a velocity of 25 miles per hour from the Northeast at 11.45 p. m. 26th, the sleet turned to rain during the early morning and at times fell quite heavily until 8.45 a. m., when the rain changed to snow, which ended at 10.45 a. m. The total fall of snow during the storm was 6 inches.

23rd, between 9 and 10 p. m., a brilliant aurora was observed in the North and East. The display was in parallel beams and was almost constantly in motion, shooting upward and downward. It gradually disappeared after 10 p. m.

Cumberland.—5th, skating on river. 9th, creek high. 22nd, 23rd, 24th, brilliant displays of aurora. 26th, creek and river frozen, ice lasting several days. Most of the winter came during the last portion of the month. Mid-winter was rather mild, the thermometer not having registered zero.

Fallston.—Mean temperature of February for 23 years, not including this year, 32.6°;

warmest was that of 1890, with an average of 40.5°; coldest was that of 1875, with an average of 23.7°. Average rainfall of February for 23 years, not including this year, 4.11 inches; wettest February was that of 1884, with a total of 7.01 inches; driest February was that of 1872, with a total of 1.50 inches. Total snowfall during February, 1894, 15 inches.

Felton, Del.—The greatest variety of weather that the oldest inhabitants ever experienced visited this section on the night of the 26th. While it was snowing, raining, hailing, sleeting, freezing, and the wind was uprooting trees in town, less than two miles away there was experienced a severe thunderstorm. The lightning struck a barn, entirely destroying it and its contents.

Frederick County.—26th, one of the worst blizzards that has ever swept over this section set in about 3.30 p. m., resulting in a big snow blockade. At the time the gale began, the ground was covered with about four and a half inches of snow, and the snow was still falling heavily. The wind increased in fury until after midnight, when it blew at a frightful rate. The tallest and most substantial buildings were felt to jar on their foundations from the terrific blasts of wind. Fields were swept bare of snow, which was blown a great distance into the roads. All the roads were closed with drifts, and farmers were busy all day digging a way through them. The National Pike between Middletown and Frederick was closed to travel except by horseback. Two attempts were made to reach Frederick with the mail, but without success. The mail from Smoketown, Washington county, got as far as Myersville and could get no further. Several teams stuck in the drifts and had to be abandoned. There were drifts in Middletown from 4 to 6 feet deep. Many of the fences and country roads were hidden from view. Telegraph and telephone lines were down.

Mardela Springs.—2nd, 5th, 12th, 23rd, cold wave. 16th, 25th, heavy wind. 10th, red-winged orioles and woodcocks heard. Average relative humidity for February, 79 per cent.

A New System Adopted by the United States Weather Bureau for Distributing Forecasts More Widely.

During the haying and harvesting season of 1893 the weather signal displayman (who is also the postmaster) at Augusta, Maine, supplied some 75 post-offices in his county with duplicates of the weather forecasts. His method of disseminating the information is described in the following paragraph of a report to the Chief of the Weather Bureau:

"The weather forecast is received at this office at between 10 and 11.30 o'clock in the morning each day and covers the succeeding 36 hours. Upon its receipt each day the prediction was manifolded upon the typewriter and immediately placed in the envelopes (furnished by the Weather Bureau at Washington) and mailed so that it reached all the offices supplied

some time in the afternoon. The labor of manifold these predictions is comparatively slight, as the forecast is always very brief, and the entire time, with the envelopes prepared for seventy-five offices, has not been a half-hour of one clerk's time, and this at a time when other business could not be attended to by the clerk. The trouble, after once starting, is very slight, and with the proper materials, such as manifold books and proper blanks, it could be either hand or type-written and mailed to 100 offices in less time than I have stated."

From subsequent communications received by the Chief of the Bureau it was learned that the efforts of the displayman were highly appreciated by the agriculturists of his county, and the benefits derived were so extensive that a unanimous request was made for a continuance of the work during the autumn.

In order to inaugurate this system in all

parts of the country and to circulate the forecasts more generally, there has been devised at the Office of the Chief of the Weather Bureau a system of distribution which minimizes the work of duplicating and mailing. The plan decided upon is to furnish the displayman with large postal cards, addressed to the several postmasters in his section, and with rubber logotypes for use in duplicating the forecasts. These logotypes contain words instead of letters, so that the forecast, which is expressed in a concise manner, can be set up in two or three minutes. After setting the type the cards may be stamped at the rate of from 20 to 25 a minute, so that, unless the displayman supplies a large number of post-offices, the extra work will be scarcely appreciable. The two sides of the card, ready for mailing and posting, are exhibited, reduced in size, in the following cuts.

IMMEDIATE.

United States Weather Report.

By authority of the Post Office Department, June 18, 1881, this Report will be treated in all respects as letter mail.

U. S. Department of Agriculture.
WEATHER BUREAU.
Official Business.

Penalty for private use, \$300.

POSTMASTER,

Kensington,

Md.

Form No. 1042-1007.

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

The following weather forecasts are furnished by the Chief of the Weather Bureau, Washington, D. C., for the information of the public

**Warmer with Rain to-night
Fair and much Cooler Friday
followed by Cold Wave Saturday**

Every postmaster receiving forecasts by this system is furnished with a bulletin board on which to post the card each day as soon as received.

The system of logotype distribution of forecasts has been in operation in some States for a number of months, meeting with entire satisfaction at all places where the plan has been put into operation; and by its means the United States Weather Bureau is now enabled to place the forecasts in nearly 3000 post-offices. The work in this connection not being arduous, and taking up but little time of distributing displaymen, has, so far, proved one of the most satisfactory means of placing weather information in agricultural districts which have not telegraphic or telephonic facilities or other means for obtaining the official forecasts.

The logotype outfits, for the use of displaymen who are willing to duplicate forecast telegrams in accordance with the plan outlined above, are for distribution to those only, who will furnish the forecasts to five or more points. Those having less than five sub-stations will be supplied with cards.

The system has been adopted by Mr. Emmett Dove, displayman at Rockville, Montgomery Co., Md., and fourteen post-offices in that section are now being supplied with the official forecasts which are telegraphed daily to Mr. Dove.

Displaymen of the Maryland State Weather Service desiring to begin this system of distributing forecasts are requested to correspond with the central office, giving a list of post-offices which can be reached (by mail) with the forecasts in time to be of value.

Miscellaneous Notes.

Prof. H. J. Patterson, Chemist of the Maryland Agricultural Experiment Station, College Park, Prince George's County, Maryland, has consented to forward copies of his meteorological observations to this office, and his February summary is included in this report. Prof. Patterson has also forwarded copies of his observations taken at College Park since, and including, 1890. These will be of value in the revision of the climatic charts.

Mr. R. M. Stevenson, weather signal displayman at Pocomoke City, Maryland, has purchased of Julien P. Frieze, Baltimore, a set of standard meteorological instruments, consisting of maximum, minimum, exposed, and wet-bulb thermometers, and rain-gauge. The instruments have been examined by an observer of the central office, who pronounces them excellent in every particular. Mr. Stevenson will furnish reports for the Maryland Service and U. S.

Weather Bureau. His observations will be valuable, as coming from a portion of Maryland in which there has been no station.

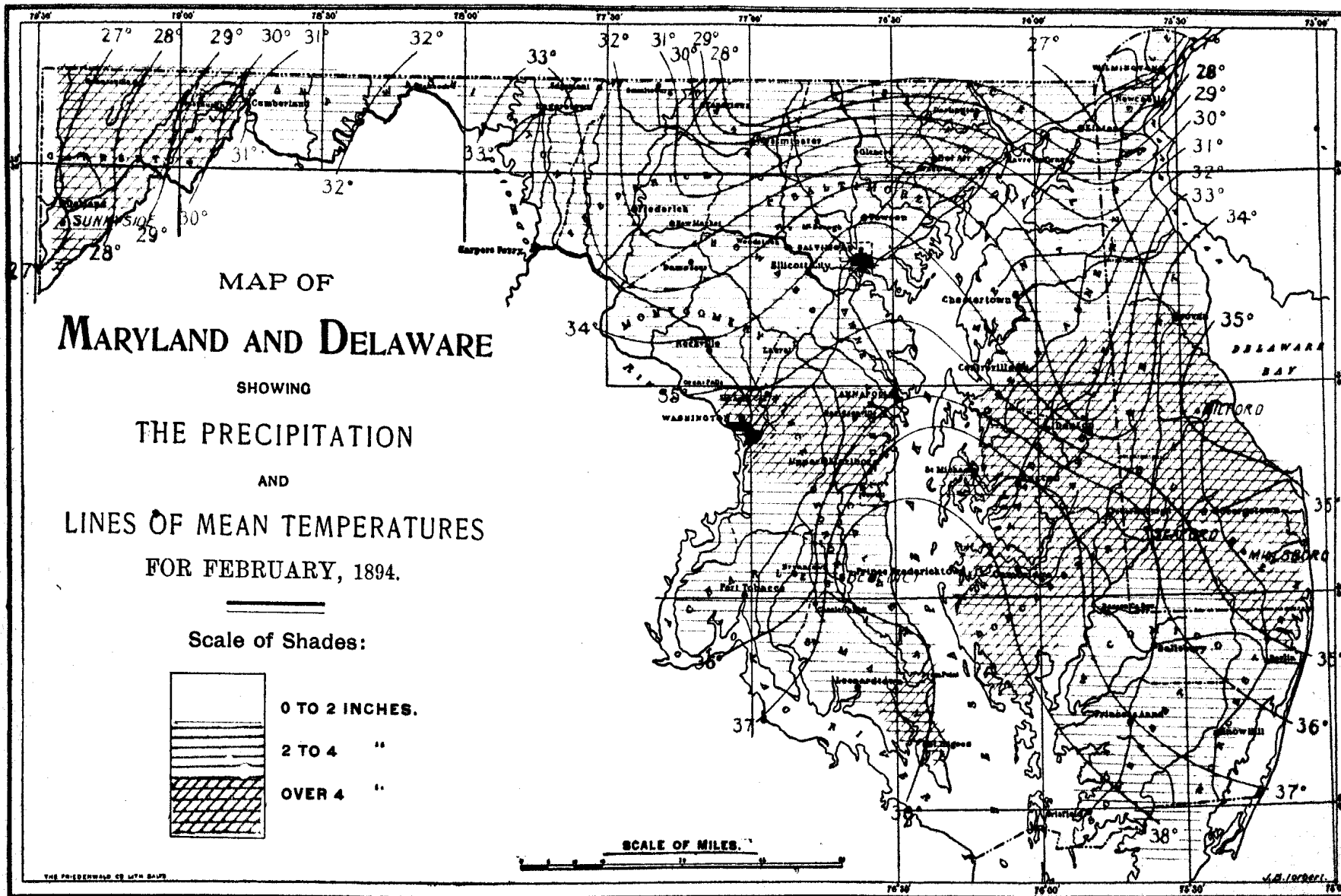
Mr. W. B. S. Chapman, La Plata, Charles County, Maryland, has turned the Government instruments at that place over to Mr. C. H. Sherwood, who has agreed to take observations. Mr. Sherwood is being corresponded with relative to the establishment of a display station at La Plata, and it is thought that within a short time all railroad post-offices in that section will be furnished with the official forecasts, distributed by means of the logotype system.

Col. John A. Tompkins has forwarded to the Director, meteorological reports for the summers of 1884-93, taken at the Thomas Wilson Sanitarium for Children. The Sanitarium is situated in Baltimore County, about one mile east of McDonogh, and the comparison of observations taken at the two places will prove interesting. Col. Tompkins, beginning on the 1st proximo, will have regular observations taken the year round, and the reports will be forwarded to this office for publication.

Mr. F. C. D. McKay has been appointed voluntary observer at Wilmington, Delaware. Mr. McKay has been engaged in scientific work for many years, and is most highly recommended by Prof. John Terhune, Superintendent of Public Instruction, Bergen County, New Jersey; Prof. L. C. Foster, Superintendent of Schools, Ithaca, New York, and Mr. T. S. Scoville, Germantown, Pennsylvania. The first report from his station will be for the month of April, proximo. The Wilmington Board of Health has already made request for the meteorological summaries to be prepared by Mr. McKay, for use in the publications of the Board, and it is presumed that the newspapers of the city, also, will make arrangements for securing daily reports from the observer.

Prof. J. H. Apple, president of the Woman's College, Frederick, Maryland, has requested that a meteorological station be established there. As no instruments are now available for issue to stations, Mr. McClintock Young, of Frederick, has kindly offered to loan his thermometers and rain-gauge to the college.

Prof. W. H. Bishop, of Delaware College, Newark, Delaware, will furnish reports of the meteorological observations taken at the experiment station there. As observations at experiment stations are taken with great care, and from expensive instruments of tested accuracy, the reports from Newark will be much appreciated.



Meteorological and Weather Signal Display Stations of the Maryland State Weather Service.

Stations.	County.	Meteorological Observer.	Displayman.
Annapolis.....	Anne Arundel.....		W. M. Abbott.
Appleton.....	Cecil.....		W. C. Henderson,
Bachman's Valley.....	Carroll.....	J. M. Myers.	
Baltimore.....		{ G. N. Wilson. J. H. Donaldson. A. T. Brewer, Ass't Editor of Monthly Report. R. C. New, Ass't Editor of Weekly Bulletin.	
Benedict.....	Charles.....	Thomas Berry.	
Bel Air.....	Harford.....		N. N. Nock.
Boettcherville.....	Allegany.....	F. F. Brown.	
Bradshaw.....	Baltimore.....		B. F. Taylor.
Buckeystown.....	Frederick.....		A. W. Nicodemus.
Cambridge.....	Dorchester.....	Calvert Orem.....	Calvert Orem.
Charlotte Hall.....	St. Mary's.....	J. Francis Coad.	
Chestertown.....	Kent.....	Hon. M. deK. Smith	
Cumberland.....	Allegany.....	{ Howard Shriver. E. T. Shriver.	
Darlington.....	Harford.....	A. F. Galbreath.	
Delaware City, Del.....	New Castle.....		W. E. Reybold.
Denton.....	Caroline.....	F. C. Ramsdell.	
Dickerson.....	Montgomery.....		W. H. Dickerson.
Distributing Reservoir, D. C.		Col. G. H. Elliot.	
Dover, Del.....	Kent.....	Jno. S. Jester.....	Philip Burnet.
Easton.....	Talbot.....	G. W. Minnick.....	G. W. Minnick.
Edgemont.....	Washington.....	Chas. Feldman.	
Fallston.....	Harford.....	G. G. Curtiss, A. M.	
Fenby.....	Carroll.....	Wm. Fenby.	
Frederick.....	Frederick.....		W. T. Delaplaine.
Frederica, Del.....	Kent.....		Miss E. V. Newnom.
Glyndon.....	Baltimore.....		J. J. Dyer.
Grantsville.....	Garrett.....		T. H. Bittinger.
Great Falls.....	Montgomery.....	Col. G. H. Elliot.	
Hampstead.....	Carroll.....		H. H. Meals
Hartly, Del.....	Kent.....		Miss C. A. Forde.
Havre de Grace.....	Harford.....		W. S. McCombs.
Kirkwood, Del.....	New Castle.....	W. C. L. Carnagy.	
Laurel, Del.....	Sussex.....		E. D. C. Hegeman.
Lonaconing.....	Allegany.....		J. J. Robinson.
Mardela Springs.....	Wicomico.....	A. E. Acworth.....	L. A. Wilson.
McDonogh.....	Baltimore.....	H. Pender.	
Middletown.....	Frederick.....		G. C. Rhoderick, Jr.
Milford, Del.....	Kent.....	J. Y. Foulk.....	J. Y. Foulk.
Millsboro, Del.....	Sussex.....	Rev. L. W. Wells.	
Mt. St. Mary's.....	Frederick.....	J. A. Mitchell, A. M.....	Jos. H. Martin.
New Market.....	Frederick.....	Miss Margaret D. Hopkins.	
Oakland.....	Garrett.....	J. Lee McComas, M. D.....	J. L. McComas, M. D.
Odenton.....	Anne Arundel.....		E. B. Watts.
Pocomoke City.....	Worcester.....		R. M. Stevenson.
Receiving Reservoir, D. C.		Col. G. H. Elliot.	
Rising Sun.....	Cecil.....		E. A. Reynolds.
Rockville.....	Montgomery.....		Emmett Dove.
Salisbury.....	Wicomico.....		L. W. Gunby.
Seaford, Del.....	Sussex.....	H. L. Wallace.....	H. L. Wallace.
Smyrna, Del.....	Kent.....		A. D. Yocum.
Snow Hill.....	Worcester.....		Purnell & Vincent.
Solomon's.....	Calvert.....	W. H. Marsh, M. D.	
†Sparrow's Point.....	Baltimore.....		Md. Steel Co.
Sunny Side.....	Garrett.....	John G. Knauer.	
Upper Marlboro.....	Prince George's.....	J. B. Perrie.	
Valley Lee.....	St. Mary's.....	J. Edwin Coad.	
Washington, D. C.....		S. W. Beall.	
Westover.....	Somerset.....		E. D. Long.
Wilmington, Del.....	New Castle.....		Wm. Lawton.
Woodsboro.....	Frederick.....		G. F. Smith.
Woodstock.....	Howard.....	T. J. A. Freeman, S. J.	
*Birdsnest, Va.....	Northampton.....	C. R. Moore.	
*Cape Charles, Va.....	Northampton.....	O. A. Browne.	
*Norfolk, Va.....	Norfolk.....	A. B. Crane.	
*Warsaw, Va.....	Richmond.....	C. H. Constable.	

*Stations of the Virginia State Weather Service. †Whistle signals only.

MONTHLY SUMMARY OF REPORTS FOR FEBRUARY, 1894.

STATIONS.	COUNTIES.	Altitude above sea in ft.	Latitude.	Longitude.	TEMPERATURE.								Monthly Range.	Total Precipitation.	Clear Days.	Fair Days.	Cloudy Days.	Rainy Days. (0.1 in. or more).	Prevailing Wind.
					Monthly Mean.	Mean of Max.	Mean of Min.	Max.		Min.									
								Degrees	Date.	Degrees	Date.								
WESTERN MARYLAND.																			
Sunny Side	Garrett		39° 18'	79° 25'	26.5	36.7	19.4	56	9	-3	17	59	6.15	7	13	8	14	N. W.	
Oakland	Garrett	2380	39 23	79 20	27.8	36.5	16.1	52	9	-10	17	62	5.83					S. W.	
Boettcherville	Allegany		39 33	78 43	30.1			58	19	2	17	56	4.50					N. W.	
Cumberland (a)	Allegany	700	39 39	78 46	35.9	45.0	28.8	61	12	2	18	53	4.14						
Cumberland (b)	Allegany	700	39 39	78 45	31.2	38.2	24.2	52	18, 19	6	17	46	3.76	11	5	12	10		
NORTHERN-CENTRAL MD.																			
Mt. St. Mary's	Frederick	720	39 41	77 21	31.6	39.0	19.7	55	10, 18	3	17	52	3.26	11	4	18	7	N. W.	
New Market	Frederick	500	39 23	77 18	31.4			53	15	11	24	42	2.43	16	4	8	5	N. W.	
Taneytown	Carroll		39 40	77 9								4	20						
Bachman's Val.	Carroll		39 40	76 55	27.8			52	19	3	17, 25	49	3.10	13	6	9	9	N. W.	
Fenby	Carroll	950	39 33	77 5	30.4			50	19	4	25	46	3.90	9	9	10	12	N. W.	
McDonogh	Baltimore	545	39 23	76 46	d33.6			54	10, 19	8	25	46							
Woodstock Col.	Baltimore	400	39 19	76 51	33.2	40.5	24.3	55	10, 18, 19	7	25	48	2.31	14	6	8	8	N. W.	
Baltimore		179	39 17	76 37	34.4	40.6	28.2	59	18	8	25	51	3.53	9	11	8	15	N.	
Fallston	Harford	300	39 31	76 24	32.0			54	19	6	25	48	4.36	1	23	4	18	N.	
Darlington	Harford	300	39 47	76 14															
Great Falls	Montgomery		39 0	77 14	34.6			56	18	14	25	42	3.28						
Dist. Res., D. C.			39 0	77 0	35.2			58	18	14	24, 25	44	4.02						
Rec. Res., D. C.			39 9	77 0	35.0			58	18	15	25	43	3.33						
Washington, D. C.			38 52	77 0	35.2	42.2	28.2	60	18	12	25	48	4.64	11	7	10	15	N. W.	
College Park	Pr. George's		38 57	76 50	b34.9	b42.5	b27.5	59	19	14	25	45	3.86						
SOUTHERN MARYLAND.																			
Upper Marlboro	Pr. George's		38 47	76 45	b35.0	b44.0	b26.2	62	17	13	25	49	3.00	18	0	10		W.	
Benedict	Charles		38 31	76 39	38.6	47.2	30.0	67	10	15	25	52	3.38	11	6	11	8	S. W.	
Charlotte Hall	St. Mary's		38 30	76 44	a36.0	44.7	27.3	68	18	15	24, 25	53	3.46					N. E.	
Valley Lee	St. Mary's		38 12	76 35	37.4							4	00	11	4	13	11	N. W.	
Solomon's	Calvert	20	38 19	76 27	37.7	44.9	30.5	67	9	15	25	52	3.91	5	5	18	10	N. W.	
EASTERN MD. AND DELAWARE.																			
Chestertown	Kent		39 13	76 7	33.3	39.4	26.9	59	18	9	25	50	2.80	11	7	10	7	N. W.	
Denton	Caroline		38 47	75 41	33.0	38.4	27.5	52	19	9	25	43	5.11	13	2	13	12	N.	
Easton	Talbot	35	38 42	76 6	37.0	44.5	29.6	63	9, 18	14	25	49	4.09						
Cambridge	Dorchester		38 39	76 7	37.8	42.5	33.0	64	18	14	25	50	5.70	17	0	11	10	N. W.	
Mardela Sp.	Wicomico	25	38 30	75 39	36.5	44.1	29.3	66	9	12	25	54	3.88	8	9	11	13	N. W.	
Kirkwood, Del.	New Castle		39 35	75 41	27.0														
Dover, Del.	Kent	40	39 10	75 30	34.2	41.7	27.9	60	18	9	25	51	4.81	10	9	9	14	N. W.	
Milford, Del.	Kent	20	38 45	75 25	35.6	43.9	27.8	62	18, 19	10	5	52	5.09	16	3	9	6	N. W.	
Seaford, Del.	Sussex		38 40	75 35	36.1	45.9	29.2	63	18	10	25	53	4.60						
Millsboro, Del.	Sussex		38 41	75 15	34.2	45.2	28.0	68	9	12	25	56	4.95	14	4	10	13	N.	
‡ VIRGINIA.																			
Norfolk					43.4	50.3	35.4	74	10	21	25	53	5.53	7	8	13	15	N. E.	
AVERAGES																			
Western Maryland					30.5	39.8	19.6					55.2	4.88	9.0	9.0	10.0	12.0	N. W.	
Northern-Cent. Md.					33.0	41.0	25.6					48.5	3.85	10.0	8.8	8.8	11.1	N. W.	
Southern Maryland					36.9	45.2	28.5					62.8	3.69	11.2	3.8	13.0	9.7	N. W.	
East. Md. and Del.					34.5	42.9	28.6					50.9	4.56	12.7	4.9	10.4	10.7	N. W.	
Entire territory					33.7	42.2	25.6					51.2	4.24	10.7	6.6	10.6	10.9	N. W.	

* Extremes of temperature from observed readings of dry thermometer. A numeral following the name of a station indicates the hours of observation from which the mean temperature was obtained, thus:
 † Mean of 7 a. m. + 2 p. m. + 9 p. m. + 9 p. m. + 4. ‡ Mean of 8 a. m. + 8 p. m. + 2. § Mean of 7 a. m. + 2 p. m. + 2.
 The absence of a numeral indicates that the mean temperature has been obtained from daily readings of the maximum and minimum thermometers. Letters of the alphabet are used to denote the number of days that are missing from record; for instance, "a" denotes 1 day missing. An italic letter following the name of a station indicates that two or more observers, as the case may be, are reporting from the same station. † Omitted in computing averages.

DAILY PRECIPITATION FOR FEBRUARY, 1894.

STATIONS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Sunny Side	.29	†	.76	.45	.14		T	.18	.43			.06	.28	†	.63	.45		.43	.33		T	T	T	T	.18	1.54					6.15	
Oakland	.01	.05	.60	.42	T		.50						.65		.20										†	1.50					5.83	
Boettcherville		.20	†	.50				†	1.10			.40	T	.60				.20	T		T	T				†	1.20				4.50	
Cumb. (a)	†		.15				.24	†	.88			.50		.45		.52															4.14	
Cumb. (b)		.09	.32					.63	.03			.43		.50		.18			.08												3.76	
Mt. St. Mary's			.40	.20				†	.86				.45	.50					.07		.08						.70				3.26	
New Market				T									.15	†	.38				1.00	T	†	.10				†	.80				2.48	
Taneytown			.30				†	.80				.40		.60				1.30	.15		.10										4.20	
Bach. Vy.			T	.20					1.00			.18	.09	.47				.50		.06						.26	.34				3.10	
Fenby				.30	.20				.60			.20	.10		.30			.60			.05	.15					1.40				3.90	
Woodst. Col.		T	.36	.10			T		.50			.10			.25			.20									.60				2.31	
Baltimore			.10	.75	T		.05	.57	.02	†	.13	.09	.02	.08			.31	.01		T	.32					.36	.70				3.58	
Fallston	T		.03	.07				.70				.68		.67			.42	T	.03		.24					1.25					4.36	
Great Falls				.60	.06			.21				.25		.73			.16				.33						.94				3.28	
Dist. R., D. C.				1.40	.07			.32				.42		.67			.17										.70					4.02
Rec. R., D. C.				.73	.08			.23	.02			.40		.59			.16				.35						.87	.05				3.33
Wash., D. C.			.29	.62	.01			.02	.30	.01		.53	.01	.06	.84		.16			.03	.40					.62	.94					4.64
Col. Park			.21	.55				.32	.02			.39	.03		.62		.15				.34					1.22						3.96
Benedict		1.03	T						.33			.33			.37						.20						.90					3.38
Charl'e Hall	T	1.07	.05				.05	.25	.37	.01		.37	T	.48	.59	.02		T			.27					.60	.80					3.46
Valley Lee			.20	.95	.07			.37	.37			.10	T	.25			.18				.38	T				.65	.40					2.80
Solomon's		1.04		.10			T	.10				.37	T	.48	.25		.26				.20											3.81
Chestert'n			.60	.30	.10		T		.35			.50	.20	.71		.20					.40					.60	1.10					5.11
Denton								1.43				.34		.45					.42		.32											4.09
Easton								.20	.75			1.00		.82		.60		.25			.44					.60	.90					5.70
Cambridge				.25				.68				T		.82		.60		.25			.44						.65					3.28
Mardela Sp.	.02		†	.95				†																								